Audio File VN20367

Excerpted Minutes: 01:18:10 to 01:51:56

Transcript of Proceedings

Audio Transcription



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1 (Beginning of excerpt.)

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MALE SPEAKER: Uh, we're a little bit ahead of schedule, but that's -- that's always a good thing and we'll get to -- to lunch a little earlier.

So we'll -- we'll start doing some questions now. We've got a few still trickling in here, but if you -- if you have any questions, please write 'em down. Megan or Vanessa can come around and -- and -- and bring 'em up front. And we'll just (inaudible) many problems here. Let's -- yeah, I won't worry about that.

So, let's take a look at some of these here, some easy ones that I think I can knock out right away.

One of the questions is, "What will utilities pay for outputs?"

I think we're meaning electricity. And that is variable. Not all the utilities are the same.

They're -- there are I think a couple representatives in the room from utilities around the state. They might be able to -- to answer this question a little bit better than I can, but the -- the rates have -- have been modified more recently. They're lower, more like avoided cost rate.

But that -- that varies from utility to

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utility, so it would be a matter of speaking with representatives from you local utility to find out what they would be offering for biogas generate electricity.

And, you know, are they engaged in the project -- project -- the project, yeah. We've had -- we've had some conversations with some of the utilities. We've -- they've expressed interest in being part of our proposal, so I -- I encourage you to -- to -- to reach out to your utilities to see how you can work together to put a project together.

Do you guys have one that you'd like to attack?

FEMALE SPEAKER: I can attack this one (inaudible).

MALE SPEAKER: Sure.

FEMALE SPEAKER: So I put up those numbers related to the hauling cost for manure.

It's -- it's -- well, my 1 to 2 cents per gallon is a very accurate estimation of how much it cost farms to have their -- their manure ga -- you know, gathered up, put in trucks, hauled off, depending on the -- the distance that those trucks need to -- to transport that manure is gonna be very dependent, so take those numbers as simply a back-of-

the-envelope calculation, but 1 to 2 cents is a decent estimate of how much that cost is per gallon to manure.

Different farms are gonna have a different amount. There -- some will use more water when doing, you know, the washes of their milk parlors and things and some will have less, so I put that up just to (inaudible), you know, give an explanation for why this is important and has some financial value to the farms potentially just simply related to hauling costs.

But my -- I had question thinking that maybe my 6.50 per cow per year was too high and it -- I don't think that's at all the case, so -- but again, as you're talking to farms and considering partnering with them, that's something that I would definitely recommend you start a discussion about.

MALE SPEAKER: (Inaudible.)

FEMALE SPEAKER: That -- by -- the math, about, it is actually -- that's per cow. One -- you have 131 per cow.

MALE SPEAKER: (Inaudible.)

FEMALE SPEAKER: And I had 650 for a thousand animal unit farm. So that's where -- so yours is actually considerably higher than the cost

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that I was describing based on a -- a thousand animal unit farm.

You have one?

MALE SPEAKER: Oh, I'll take this one.

The question was, "How will foreign products now currently installed in the United States be expected to demonstrate performance?"

Um, first of all, I would -- I would hope that they are actually installed, somewhere, and that you could provide information regarding what sort of operation it's installed in, what its capacity is, what sort of volume it's handling, what is its performance -- by that, I mean if it's a water treatment system, what effluent limits, is it -- is it actually achieving, what sort of pathogen reduction it's achieving.

That -- that documentation should be able to be provided and -- and maybe with some contacts that the evaluators could, if they chose, contact to verify some or -- or ask additional questions regarding it.

So, I think that there would be the opportunity to provide that information.

And, you know, as far as where is it installed, you know, the -- the scale, how applicable is it to -- for example, if it's installed in Morocco,

where it's warm, maybe, you know, as opposed to where
-- here, where it may have some challenges in the -in the colder clim -- climate, how -- how would you
address that issue, those types of things.

So, again, it's sort of a depends type answer, but it's also you should be able to provide some information about where it's installed, the scale that it's -- that it's operating under and what its performance is.

MALE SPEAKER: So we got one here that's -- that's asking about the -- the scale of the project.

"Does it [-- does it] have to be as large as what was proposed in the dynamics study? And could it be a single farm?"

I think the best way to answer that question is to look at the evaluation criteria and see if it flies. So here is the evaluation criteria section for nutrient management and it talks about the number of farms and the number of animals included, so -- so that should answer your question.

If -- if you can -- if you can get enough points using one farm or going un -- you know, less -- reducing the scale that was proposed in the Phoenix study and still meeting those -- those criteria, then -- and you get the minimum, as well as address the

other aspects of the -- of the evaluation criteria, yes.

Let's see. There's a -- there's a couple questions that are kinda related to each other.

FEMALE SPEAKER: (Inaudible.)

MALE SPEAKER: Okay.

So the questions are essentially, "If [-if] the gas reduced would not be used in Wisconsin,
does it qualify?"

Again, it goes back to that -- that eligibility question. Does the project reduce demand of electricity and/or natural gas in Wisconsin participating -- a Focus on Energy participating utility in Wisconsin. That's the question.

If you can somehow design a project that -that has an out-of-state off -- off-kicker, but also
reduces demand in a Wisconsin utility, then, yes. The
reason I -- I -- I'm a little bit ambivalent about is
-- is that, you know, there's -- there's obviously a
lot of opportunity with credits outside of Wisconsin - California, federal credits, what -- what have you.

And so the other question is, is there a discussion about a RFS in Wisconsin -- a Renewable Fuel Standard -- in support of RNG or even CNG, and would the current federal RFS concerning biogas and

RNG and CNG -- is -- is there a degree of certainty or how -- how much can we -- can we rely on that to be around?

We can't answer that. The -- the -- the federal government will make determinations on whether or not certain programs continue. It seems that there has been some success and some feelings about extending those programs, but it's by no means guaranteed and we can't certainly do that at the state level.

But I think there are opportunities to look at carbon credits or other RNG related credits in California or elsewhere. But, again, the question becomes if you can put -- put forward a proposal that is -- is -- that describes the reduction and demand of natural gas in Wisconsin, that's where the rubber meets the road for the Focus incentive. I hope that's -- that's clear.

Is there one that you guys are looking at?

FEMALE SPEAKER: Yeah, I've got a couple.

MALE SPEAKER: Okay.

FEMALE SPEAKER: Okay.

So one of the questions is, can -- can I briefly speak to liquid manure application via center pivot or similar, in light of the recent white paper

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released from the UW, and how would an application as such be viewed in the evaluation?

So, the relationship to -- the -- irrigation is comp -- complicated to some extent. There was a UW study, that the question's referring to, on manure irrigation and risks of pathogen transport, aerial transport, once it's being irrigated out of a center pivot, traveling gun, you know, what have you. What it was found is that there are safe -- safe setbacks that can be used to allow for a manure irrigation and that's prior to any significant pathogen reduction technology being applied to it.

So that's a -- you'd have to do a lot of separation of course to get it liquidy enough to be able to go through most of the irrigation systems that are being used out there. However, from an agronomic aspect, irrigating (inaudible) waters or these very liquidy manures, I feel, is a very benefic -- extremely beneficial application method for that type of manure, something that we would like to see being used where it makes sense and where there's acceptance of that practice.

So we cannot, at the state level, but the local jurisdictions -- towns, in most cases -- are the ones that have initiated these ordinances related to

public health, which are banning manure irrigation to be applied this way. However, it's always, you know, been associated with risk of pathogens and the transport and risk to humans and animals and such.

So, while I cannot at the state level go in and tell them they can't have those bans anymore, I think by using technologies like this to reduce the pathogen loads, that's definitely make -- gonna make progress towards this being a more accepted practice in the northeast part of the state and other locations.

So, personally and as our department, we would highly recommend trying to work toward those goals. Oftentimes, it's the larger farms that have the capacity and the equipment necessary to irrigate that manure so kinda keep that in mind as you're talking to farmers.

Another question I just will handle quick is, "Are all NMP's in Kewaunee N-based? Are any or will any be P-limited?"

To be compliant with the 590 standard, it is a phosphorus-based standard. So it -- and that's why I spoke to the topic of separating out your phosphorus potentially more so in the solid portions of the manure effluent, keeping nitrogen in the more

liquidy ones.

That allows the phosphorus to be placed on fields that are often farther away from the farm, harder to get to, have higher costs associated with transporting that manure those larger distances, and so it can go farther and be better utilized on fields that actually do need the phosphorus, keeping it off some of these fields that aren't allowed to receive as much or potentially any phosphorus through a manure application.

So the short -- the direct answer to that question is any plans that are compliant with the 590 are absolutely phosphorus based.

MALE SPEAKER: Before I take the next question, does anyone have a question they'd like to ask in the microphone or should we just continue with this -- these questions, these written ones? Sure.

MALE SPEAKER: Matt Cole with ESG. We run three digesters in Kewaunee County.

And on the electrical and gas offtake side, two things. Obviously, we're in We Energies territory and they are only paying avoided cost on electricity, but they also have a policy where they are restricting access to their pipeline, so not only can you not really generate electricity but they won't allow you

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to put your gas into the pipeline regardless if it meets the quality or not. And that seems to me to be a little bit counterintuitive to the Focus on Energy program. Is there any plans to talk to them to address that issue?

MALE SPEAKER: Yeah. Thanks. Um, the -the thing that we've noticed in some of our
conversations with folks is that the -- the interstate
pipelines are far more receptive in talking about
selling gas to a pipeline. There are a variety of
reasons why the local utilities and some of the -- I - the -- the natural gas utilities are reluctant to -to take on gas. A lot of it has to do with gas
quality, things I'm sure you're aware of.

In -- in our conversations, there's been far more recep - receptivity with -- with interstate pipelines. I think that I would encourage a conversation with them. You had a follow up?

MALE SPEAKER: Yeah. Yeah. It is

counterintuitive considering that the Focus on -
Focus on Energy money actually goes to those local

utilities and yet we're forced to deal with the

interstate pipelines that increase transportation

costs, increase compression costs, and yet our money --

1 MALE SPEAKER: Can you talk into the mic? 2 I'm sorry. 3 MALE SPEAKER: What's that? 4 MALE SPEAKER: Can you talk into the mic? 5 MALE SPEAKER: Yeah, sorry. Sorry. 6 MALE SPEAKER: Yup. 7 MALE SPEAKER: Yeah, it seems 8 counterintuitive that we have to talk to the 9 interstate pipelines and increase all those other 10 costs when, you know, I mean, rate payers are actually 11 paying money to these local utilities and that's where 12 this money is coming from. 13 So, I mean, I've dealt with the interstate 14 pipelines plenty of times. It's just it makes it so 15 much harder. That's one more hurdle, more additional 16 costs, all those other things. 17 MALE SPEAKER: Yup, yup. Yeah. 18 There -- there will be some -- some folks 19 from Focus in the -- the afternoon session. I'd like 20 to revisit that -- that question and talk about, you 21 know, focus eligibility, as well, in that circumstance 2.2 because we -- we certainly have had that conversation 23 with -- with the local utilities and the -- the interstate pipelines and trying to kind of square 24

that.

1 So I -- I -- let's revisit that this 2 afternoon. I would definitely like to revisit that 3 and get a -- a better answer than I can give. 4 Any other questions from the -- the audience before we move on here? 5 6 Okay. 7 MALE SPEAKER: Wait --8 MALE SPEAKER: So one question is --FEMALE SPEAKER: Hey, Clint. 9 10 MALE SPEAKER: Yeah. 11 MALE SPEAKER: Hi. 12 Can you explain how you think this math 13 works 'cause I'm not sure I get it? You gotta have at 14 least one 700-cow farm, but a 700-cow farm gets you no 15 points down in the bottom. It doesn't get you any 16 points up at the top. I'm trying to figure out how it 17 is that you actually get to 25 points in -- in terms 18 of your evaluation criteria. 19 So, I -- I suppose if I had a -- a 700-cow 20 farm and some other farm, I'd get 15 points up top and 21 I'd get 5 points on the second thing, so I'm at 20, if -- if I qualify, but I get no more points. So how 22 23 does it -- can you -- can you help provide some 24 guidance or am I just reading this wrong?

MALE SPEAKER: Well, so -- so the idea is

that the very bottom section there is the total number of animals that are involved in the system.

So, you're right. So, one single 700-cow farm isn't going to be able to get points from the bottom section there. You might be able to get the 15 at the top and you get your 5 points there, you're up to 20, you're right, but you still need those additional animal -- animal units to be involved in the project in order to get those points. Does that make sense?

MALE SPEAKER: I'm -- I'm just trying to figure out how you negotiate, I don't know, five, six farm contracts (inaudible) before May 1st. If there are say three consortia in here, we're all gonna be running around bombarding farmers who actually have a full-time day job, which is (inaudible). I'm just trying to figure out --

MALE SPEAKER: Yeah.

MALE SPEAKER: -- how to try and make it happen.

MALE SPEAKER: Yeah.

MALE SPEAKER: 'Cause like -- 'cause unless you get some ginormous farm, you're gonna have a hard time getting to 25 points or you're gonna have a ton of small farms, which is gonna have enormous

complexity, and I just don't see how to hit a May 1st deadline.

FEMALE SPEAKER: I'm -- I'll let, uh, Clint speak to the contracts because I think there is an opportunity for there to be some initial agreements in place but not necessarily have gotten a full contract situation established with the farm about what kind of products they're taking back and those kind of things.

Having a agreement, contract, potentially in place that would say that they're willing to participate and that those additional terms and such can be negotiated afterward, I think there's opportunity there, given that there could be a num -- the kind of system and effluent streams could be pretty dynamic, depending on the project.

That said, there are a number of large farms. The goal of the program and this project is not, you know, as we've kinda said before, it's not just a digester. We're really looking for the manure management and treatment aspect.

And so these points are there to encourage the volume of manure that's going to be produced by projects to be as large as possible, as -- as makes sense obviously. I mean, there's constraints and sideboards built in there, but -- as you mentioned --

but the goal of the program is not just another

digester. We want to be able to have the manure

management and water quality aspects associated with

it.

So, I recognize the -- the complexity and

So, I recognize the -- the complexity and difficulty at times, potentially, of getting in touch with the farms. However, we've been doing our best as a group and as a department to also get the word out and there are a number of eager and interested parties out there to date. So -- and not to mention there are a lot of very large farms and a lot of farms that are right on that threshold.

So, 700 animal units is a CAFO. So, anything less and you get a few of those that are more in the hundred -- or, excuse me, 500-cow realm, which there are also a number of, and those numbers will add up fairly quickly to that 5,000 animal unit level, I believe.

MALE SPEAKER: Yeah, I would just -- I would just echo that, you know, it's possible to have some conditional agreements in place, dependent on -- on success of the -- of the proposal. Excuse me.

And, you know, looking at the -- the bottom criteria there, we're -- we're trying to think big.

We're trying to attack a problem that has a lot of --

1 a lot of complexity to it. We -- we recognize that. 2 It's not going to be easy, of course. But we're --3 we're trying to think big and we're trying to get 4 proposals that have a -- a large impact on some of the challenges that we see, in water management 5 6 particularly, so -- yeah, it's -- it's -- it 7 will be difficult, yes, to have a bunch of agreements 8 between smaller farms. I mean, that would be a huge 9 amount of complexity. 10 We -- we definitely encourage the inclusion 11 of the smaller farms. In fact, it's required. But we 12 definitely want to see a larger impact, so we're --13 we're kind of -- kind of thinking big. 14 I think there's another question over here. 15 MALE SPEAKER: Yeah. 16 The numbers don't quite make sense on the 17 second part. If you have 4,999 animal units, if one 18

The numbers don't quite make sense on the second part. If you have 4,999 animal units, if one cow dies, then you get zero points. If one cow has a birth, then you'll get four point. And it doesn't -- I mean, that -- that -- that logically just doesn't make sense.

MALE SPEAKER: I think that there's some wiggle room there that we can -- we can inject into how we're evaluating a farm. If -- I --

(Multiple speakers inaudible.)

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1 I'm with ya, I'm with ya. MALE SPEAKER: 2 So, you know, there will be -- there's gonna be some 3 creativity from the evaluation team looking at exactly how many cows we're really proposing. I -- I -- I'm 4 5 not sure if we're gonna have a real big problem if --6 if -- if a proposal comes forward and it's 4,998 today 7 -- I could be wrong, but I think that -- that these 8 are kinda just more or less just general guidelines, 9 but we'll -- we'll -- as each evaluation comes in --10 each proposal comes in, we'll evaluate them. 11 And --12 FEMALE SPEAKER: (Inaudible.) 13 MALE SPEAKER: So --14 MALE SPEAKER: Can I do a quick one? 15 (Inaudible.) SPEAKER: 16 MALE SPEAKER: Yeah, go ahead. (Inaudible.) 17 MALE SPEAKER: If the goal is to make this a 18 large project to handle Kewaunee County's manure 19 issue, why not increase the points for the larger 20 There's approximately 95,000 cow Excuse me. 21 units in Kewaunee County. You're only getting 25,000 animal units for 10 points. How 'bout jacking that up 22 23 so the bigger project comes forward? 24 MALE SPEAKER: Yeah. That's kind of a 25 mirror to the comments this -- already this morning,

Audio File VN520367, Excerpted Minutes: 01:18:10 to 01:51:56 1 right, where we're talking about can we even get up to 2 this -- the -- the lowest threshold, given the 3 complexity of the agreements we're gonna have to put 4 forward. 5 So, it was a balance between exactly what 6 you're saying. We want to make a big impact and what 7 is reasonable for folks to be able to -- to get together if we're -- if -- if something comes forward 8 9 that maybe doesn't have as many players in it. So 10 it's kind of a balancing game we've had to play. 11 Of course, you know, we -- we'd want to see 12 -- the more, the merrier in -- in how we're attacking 13 the number of animals in -- involved in a project. 14 But we had to kind of balance. We had to kinda have a 15 reasonable expectation of -- of what would be the 16 lower threshold. 17 But you're absolutely right. I mean, we 18

would encourage a project to come in with more than 25,000 animal units involved, of course, but we had to kind of -- had to be reasonable about the lower end and the high end of what we were expecting.

> SPEAKER: (Inaudible.)

MALE SPEAKER: So I think -- oh, you got

one?

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I will take one. MALE SPEAKER: Okay.

And also, for those of you that have -- that have asked some questions, I -- I am hoping that I can provide some answers, but Tim Ryan, if he is able to be here this afternoon, has -- would probably be able to provide a little more in-depth answers to some of these questions. So I'm gonna hold off and see if he comes for the afternoon session on some of the ones, but if he doesn't, I -- I can take my best -- my best shot.

But one that I can talk about here, "Animal numbers will change over time. Should system be designed, sized for current numbers or is there a growth factor to be included in the design? If so, how much?"

And -- again, this is one of those it depends answers. And you certainly want to design the system to handle a -- a modest amount of growth.

But that's gonna depend on your consortium, who's participating, what their plans are. And so, if you have somebody that is planning on, you know, a significant expansion in the -- in the next few years, you probably want to design your system to accommodate that. If you are -- you know, nobody is really planning any expansions at this time, you probably want to size it a little bit in capacity.

Probably ideal is to have a system whereby

you can do add-ons and -- and so by -- you know, maybe

by adding a particular filtration system, you can -
you can accommodate increases in the numbers that

you're -- that you're dealing with.

So, but let's (inaudible) how much, that's

So, but let's (inaudible) how much, that's not a -- not something that we can really say, you have to design it so it, you know, is 25 percent over current capacity. That's not something that we're really looking at. But it is something that you may want to factor in depending on who you have involved in your particular proposal.

(Announcement regarding lunch break taken from 01:44:00 to 1:44:43.)

MALE SPEAKER: I guess we have a few minutes left. I'll -- there's a few questions I can -- I can knock out real quick.

So, one is, "Is how many consortiums do you expect to fund?"

So, the Commission allocated \$20 million for -- for this effort. So whatever projects come in, it depends on how much incentive they're asking for. It could be one for 20 million; it could be three for around 7 million apiece, little less. So it completely depends on the size of the projects that

come in.

We -- if -- if the money is not allocated, say no one gets it, there will be other rounds.

There's a part in the RFP that talks about additional rounds. So it will depend on the proposals that come in.

There's a question about, "Does the award value remain regardless of the other grants received?"

So, there's a section in the RFP that talks about Focus incentives against all other funding for the project and the more funds that come from either private investment or the Great Lakes Funds or what have you, the other funds, the non-Focus funds, the -- the larger that proportion, very likely the -- the -- the -- the more the -- the better evaluation. That'll be looked at better, the -- the -- so the smaller the portion of the Focus fund versus the entire project cost, the better.

You have a question here?

MALE SPEAKER: (Inaudible.)

MALE SPEAKER: It takes a little bit to come on after you flip it on.

MALE SPEAKER: For me, the problem that I see with these numbers of the animal farms is that in order to have a irrigation plan, the manufacturer,

1 (inaudible), you have to have a minimum of 4,000 cows 2 at the bottom. I think you drew this (inaudible) at the bottom for the (inaudible) process. 3 4 MALE SPEAKER: So you're saying the number of cows on the -- on the very bottom should be 4,000 5 6 instead? 7 MALE SPEAKER: 4,000. MALE SPEAKER: As kind of a minimum? 8 MALE SPEAKER: The minimum, in order to have 9 10 (inaudible) plan. 11 MALE SPEAKER: Okay. I mean, kind of in 12 line with the other -- the other questions we've had, 13 you know -- well, that's a minimum. The 4,000 you're 14 saying is kind of a minimum for that -- for that 15 process. We're kind of thinking large. 16 thinking big. We're -- we're -- we had to kind 17 of establish a minimum threshold for --18 MALE SPEAKER: Sure. 19 MALE SPEAKER: -- what we were expecting to 20 have for a -- for a viable project, so it -- and I'd -21 - I would encourage you to, you know, to -- okay. 22 I'll hand over the rest. 23 MALE SPEAKER: One thing I point out is that 24 this is animal units, not animals. So, I don't know 25 if you're talking animal units, that you need 4,000

1 animal units or 4,000 animals, but 4,000 animal --2 animals would come pretty close to that 4,999, you 3 know. And as that's structured, you know, and 4 listening to the discussion, I just wanted to add two cents here, I would agree, you'd need a minimum of two 5 6 farms in order to -- to get 25 points there because --7 MALE SPEAKER: There were a point that we 8 say is what about if we is to have one large or 5,000 9 or 5,000 animal units, and 4 or 5, 40 cows or 50 cows. 10 Why not? 11 FEMALE SPEAKER: Right. 12 MALE SPEAKER: You could do that. 13 MALE SPEAKER: That will -- it's much easier 14 to get a contract and will benefit a little one. 15 Instead to have a limit, we can have a farm between 50 16 to 100 cows and --17 FEMALE SPEAKER: Absolutely. 18 MALE SPEAKER: -- that -- that would do it. 19 FEMALE SPEAKER: One of the -- and we put in 20 the requirement to have to have at least one non-CAFO 21 farm because with this -- we didn't want was this 22 simply to be a project for the largest farms. 23 There's 16 CAFO's currently in Kewaunee County. There are 175 other farms that are smaller 24 25 than that. So we very much want to assist the smaller

farms with their manure management issues, which are often as big, as difficult to handle, as it is for a CAFO, but they often don't have the resources with which to, you know, handle the manure in a very dynamic way.

So you could absolutely get to that number, any num -- any different -- any number of different ways, through a few large farms and then a number of small farms, all small farms. I'd love to see the gamut of diversity there.

MALE SPEAKER: Okay.

FEMALE SPEAKER: One more comment.

FEMALE SPEAKER: Sure.

MALE SPEAKER: Well, I mostly have a statement. I just want to make a comment in reference to this animal units and stuff. We have to think outside the box too on this.

I'm a poultry producer on the western part of this state and we have a tremendous problem with trying to get rid of our waste, so we have to think outside the box and other than just cows. You know, there's -- there's us other livestock growers out there that have the same problems with manure that could be a good candidate for this project also.

FEMALE SPEAKER: Absolutely. And that's why

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1 it says livestock. It doesn't just say dairy. 2 Obviously, dairy's a big component of the agricultural 3 industry in that part of the state, but we very much 4 recognize that there's hog producers, poultry, lots of other options -- beef, cattle, and whatnot, too --5 6 that could obviously be a participant in this project. 7 MALE SPEAKER: Yeah. I think -- I think we 8 have a lot more questions. Still -- there's still 9 some in front of us that we haven't addressed, but the 10 afternoon session is gonna be broken down into more 11 specific parts of energy, water, nutrients, and Focus 12 questions. And we'll have a whole panel of folks 13 available to answer those questions, more than just 14 the three of us here. We'll take one more question. 15 Then we'll break for lunch. 16 MALE SPEAKER: Real quickly with the -- the 17 -- in response to this -- this gentleman's question 18 about the other types of livestock, are -- are there -19 - are the numbers adjusted or are you using these 20 parameters or what --21 (Multiple speakers inaudible.) 2.2 FEMALE SPEAKER: There's an --23 FEMALE SPEAKER: So the way -- again, it's 24 animal units and so every kind of livestock animal

converts to an animal unit number. It takes how many

1	chickens to be a
2	MALE SPEAKER: (Inaudible.)
3	FEMALE SPEAKER: Well, my point being that -
4	_
5	MALE SPEAKER: Okay, oh yeah, that
6	that's fine. Thank you. That
7	FEMALE SPEAKER: If you go to the DNR's
8	website
9	MALE SPEAKER: That answers his question.
10	FEMALE SPEAKER: and look under NR-243
11	aspects, and maybe we can put a link to that so you
12	can do some
13	MALE SPEAKER: What about
14	FEMALE SPEAKER: you can do the back
15	envelope calculation.
16	MALE SPEAKER: what about any any
17	additional types of industrial waste center that are
18	ending up fee land applied? How how are those
19	accounted for?
20	MALE SPEAKER: So there's a there's a bit
21	of guidance at the end of the RFP on off-farm
22	substrates. I would encourage you to to read that
23	over. There's also some data that we we have in
24	the studies. It talks about industrial waste, food
25	waste, this kind of thing.

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We definitely encourage the inclusion of those wastes to -- it increase biogas production. Ιt kind of flushes out the -- the -- the ability to use the gas in different ways. So, there's some guidance in the RFP for that. (End of excerpt.)

Certification I, Megan Wunsch, hereby certify that the foregoing pages are a true, accurate, and complete transcript of proceedings, transcribed by me from a copy of the electronic sound recording to the best of my knowledge and ability. I was not present at the recording sessions and have no way of personally guaranteeing the accuracy of the recordings. by: Megan Wunsch

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